

Title (en)
SOLID-STATE IMAGING DEVICE AND CAMERA

Title (de)
FESTKÖRPERABBILDUNGSVORRICHTUNG UND -KAMERA

Title (fr)
DISPOSITIF D'IMAGERIE À SEMI-CONDUCTEURS ET CAMÉRA

Publication
EP 3253047 A4 20180117 (EN)

Application
EP 16742956 A 20160122

Priority
• JP 2015014822 A 20150128
• JP 2016000317 W 20160122

Abstract (en)
[origin: US2017302869A1] A solid-state imaging device includes: a pixel array including a plurality of pixel circuits arranged in rows and columns; a vertical signal line that is provided for each of the columns and transmits pixel signals; a column AD circuit that is provided for each of the columns and AD converts the pixel signals from the vertical signal line; a column-switching circuit that is interposed in the vertical signal line between the pixel array and the column AD circuit and switches connection between the vertical signal line and the column AD circuit; a controller that causes the column-switching circuit to switch the connection for every horizontal scan period; and a restoration circuit that restores ordering of the AD converted signals so as to correspond to ordering in which the vertical signal lines are arranged in the pixel array.

IPC 8 full level
H04N 5/378 (2011.01); **H04N 5/365** (2011.01)

CPC (source: EP US)
H04N 25/67 (2023.01 - EP US); **H04N 25/677** (2023.01 - EP US); **H04N 25/75** (2023.01 - US); **H04N 25/76** (2023.01 - US);
H04N 25/78 (2023.01 - EP)

Citation (search report)
• [IA] US 2012062772 A1 20120315 - OSAWA SHINJI [JP], et al
• [A] US 2010213350 A1 20100826 - SHIKANAI TAKESHI [JP]
• See also references of WO 2016121352A1

Cited by
KR20200020085A; US11290670B2; US11765481B2

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)
BA ME

DOCDB simple family (publication)
US 10194105 B2 20190129; US 2017302869 A1 20171019; CN 107113388 A 20170829; CN 107113388 B 20200728;
EP 3253047 A1 20171206; EP 3253047 A4 20180117; EP 3253047 B1 20181128; JP 6738286 B2 20200812; JP WO2016121352 A1 20171109;
WO 2016121352 A1 20160804

DOCDB simple family (application)
US 201715636088 A 20170628; CN 201680004754 A 20160122; EP 16742956 A 20160122; JP 2016000317 W 20160122;
JP 2016571853 A 20160122